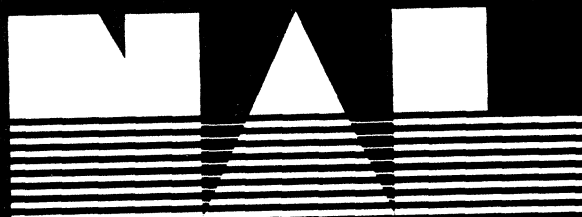


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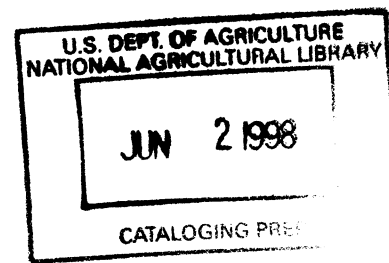
HISTORY OF CCC BIN STORAGE PROGRAM 1933 - 1975

**UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE**

**United States
Department of
Agriculture**



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HISTORY OF CCC BIN STORAGE PROGRAM

1933 - 1975

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I N D E X

<u>BACKGROUND</u>	Page 1
CCC Inventories - 1949 to 1954	5
Increase in Corn Productivity	9
Bin Storage Grain Inventories	13
CCC Granary Storage Costs	14
 <u>PURCHASE OF STRUCTURES, NONEXPENDABLE EQUIPMENT, AND ESTABLISHMENT OF BIN SITES</u>	 15
Summary by Year of Number and Type of Structures Purchased	16
Summary of Bin Costs by Year	19
Record of Bin Sites Purchased	20
 <u>STORAGE COSTS AND QUALITY MAINTENANCE</u>	 22
Storage Cost Comparisons - 1959 to 1960 FY	25
Storage Cost Comparisons - 1963 to 1964 FY	26
Storage Cost Comparisons - 1965 FY	28
 <u>GRAIN SHRINKAGE</u>	 29
Historical Record of Shrinkage at Central City, Nebraska, Site	31
Bin Site Cleanouts - 1949 to 1967	32
Bin Site Cleanouts - 1949 to 1967 by Commodity and State	33
 <u>LOCAL SALES AND SHIPMENT OF BIN SITE GRAIN</u>	 36
Pricing	37
Summary of Bin Site Utilization	40
Reserve Fleet Ships Used for Storage of Grain	41
 <u>BIN TRANSFER PROGRAM</u>	 42
Number of Bins Moved and Costs Involved	46
Bin Movement Breakdown by State	50

I N D E X C O N T ' D

<u>CCC-OWNED STRUCTURE RENTAL PROGRAM</u>	Page 51
Rental Agreement Fees	52
Income from Rental Program	53
 <u>BIN SALES PROGRAM</u>	 54
Copy of Form CCC-705 - Receipt from Sale of Equipment - Illinois	 56

PREFACE

Over the years probably no Government farm program caused any more controversy than did the CCC bin storage operation. This controversy was not due to inept handling of the program, but the fact that the Federal Government was actually engaging in the storage of commodities which, to the thinking of some, was in direct competition with private enterprise.

With the dramatic turnaround of commodity carryovers, the need for this type of storage has ended and the CCC bin storage program phased out.

The director of the Grain Division, ASCS, as well as the Storage Section, felt that some of the highlights of the bin storage program should be recorded and made available for future research. With this in mind, the history of the program has been written. Mention of individuals involved in the administration of this program over the years has been omitted primarily because it would be impossible to list all those from the Washington level down through the counties who contributed to the successful administration of this very complicated program.

BIN STORAGE PROGRAM BACKGROUND

From its creation on October 17, 1933, until 1948, the Commodity Credit Corporation operated under a charter from the State of Delaware which authorized it to engage in storage activities. In 1939, 1940, and 1942, CCC purchased about 141,000 farm-type grain bins to store grain, principally corn and wheat, turned over to it under its price support operations, for which privately owned facilities were not adequate in the area concerned. During World War II and shortly thereafter, demand for grain in relation to production was such that CCC did not need most of this bin storage space and most of the bins were sold during this time, largely to producers for grain storage and other farm purposes.

On June 29, 1948, the 80th Congress approved the CCC Charter Act which provided that the Corporation could acquire real property subject to the following provision:

"Provided, That the authority contained in this subsection (h) shall not be utilized by the Corporation for the purpose of acquiring real property, or any interest therein, in order to provide storage facilities for any commodity unless the Corporation determines that existing privately owned storage facilities for such commodity in the area concerned are not adequate."

Thus, it appeared clear that Congress intended the Government to utilize private channels of trade and private storage facilities to the maximum extent consistent with the fulfillment of the Corporation's purposes and

the effective and efficient conduct of its business.

In 1939 and 1940, when there wasn't enough space in country elevators to store 1938-crop corn delivered in satisfaction of loans, CCC bought bins having a capacity of 136 million bushels and erected them in producing areas. Later, in 1942, to store wheat taken over from the 1941 crop, additional bins were purchased having an aggregate capacity of 156 million bushels.

CCC sold a substantial percentage of its 292 million bushels of bin capacity to farmers during World War II and immediately thereafter. This action was taken for several reasons. First, CCC had liquidated its grain stocks to provide food and feed urgently needed for war purposes, or for post-war foreign relief feeding, and had no immediate use for the bins. Second, farmers were experiencing difficulty in obtaining storage bins elsewhere because of wartime shortages of metal and lumber. Furthermore, many of the bins, especially the wooden ones, were in danger of deterioration and CCC took advantage of the opportunity to dispose of them at fair prices. By the end of December, 1948, CCC's owned-bin capacity had dropped to about 17,000 bins with a capacity of 45 million bushels located in four States.

Farmers, as well as the Commodity Credit Corporation, had storage problems in 1948 and for several years thereafter, largely because war and post-war shortages of metal and lumber had kept many farmers from bringing their

grain-storing capacity into line with grain-producing ability. CCC tackled these problems from several angles.

Combined production of six grains in 1948 - corn, wheat, oats, barley, sorghum grain, and rye - reached an all-time high of 6,823 million bushels, and in 1949 was a big 5,995 million bushels. Substantial percentages of these crops were put under price support and eventually were taken over by CCC. These heavy acquisitions again focused attention on the very serious problem of what to do with CCC-owned grain for which there was no space in commercial elevators.

In 1949, because of heavy deliveries of grain to CCC, and the resulting pressure on commercial storage space, it was again necessary to purchase bins. With the exception of 1951, bins were purchased each year through 1956. During this period, 958.9 million bushels of storage space were purchased. This brought total CCC-owned storage capacity to slightly more than 990 million bushels. The space was utilized to full, or nearly full, capacity for the next several years. No bins were purchased after 1956.

In addition to the CCC bin site operation in December, 1949, CCC initiated a program to encourage construction of commercial-type warehouse facilities. Under the program, 700 entered into agreements with commercial warehousing agencies and cooperative associations to guarantee use of 75 percent of new storage capacity for a period of 3 years in completely new storage structures,

and for 2 years in new additions to existing structures. Rates in effect under CCC's Uniform Grain Storage Agreements were paid for grain actually stored. If less than 75 percent of the facility was used, CCC paid 10 cents a bushel for the first year, 9 cents for the second, and 8 cents for the third, for the unused portion of the 75 percent of capacity. Approximately 93 million bushels of capacity was constructed under the program, which was discontinued in February, 1951, when the need for additional storage became somewhat less urgent.

During this period of time, Maritime Administration ships anchored in the Hudson River provided an additional 12 million bushels of storage space for CCC-owned grain. Also, storage space acquired through leases of "right-of-entry" agreements in buildings of the Army, Navy, Air Force, and other Government agencies added 12 million bushels of capacity.

It was expected early in 1953 that grain and oilseed storage again would become a serious problem in 1954 for both farmers and CCC. The following tabulation shows that those expectations were realized:

COMMODITY CREDIT CORPORATION INVENTORIES
OF CORM AND WHEAT AS OF MARCH 31, 1949 - 1954
(Inventories of Other Grains and Oilseeds Were Insignificant)

	March 31, 1949	March 31, 1950	March 31, 1951	March 31, 1952	March 31, 1953	March 31, 1954
(millions of bushels)						
CORN	---	217.5	438.1	366.1	261.1	441.7
WHEAT	1.0	138.1	228.8	95.3	119.4	438.3
TOTALS	1.0	349.3	666.9	461.4	380.5	880.0

It was estimated in June, 1954, that the carryovers of wheat and corn at the start of the 1954 marketing years would aggregate 1,850 million bushels - 950 million for corn and 900 million for wheat.

Prompt action was taken to meet the new storage threat.

In 1953, bins having a capacity of 16 million bushels were purchased. In April, 1954, bins with an aggregate capacity of 100 million bushels were added and in June, 1954, it was announced that the CCC Board of Directors had authorized the purchase of an additional 100 million bushels of capacity. Even after making allowance for the loss of 11 million bushels of capacity in recent years from floods, windstorms, fires, and other causes, the new purchases, plus the purchases in prospect, brought the ability of CCC to store grain in its own bins to a record 835 million bushels. It should be emphasized that these CCC-owned bins were for use in areas where commercial storage facilities were inadequate, and that they had been purchased primarily to store CCC-owned grain acquired under the price support program.

In August, 1953, it was announced that storage use guaranties would be made to commercial firms, including cooperatives, to encourage construction of storage facilities for grains and oilseeds. The new program aimed at easing the storage situation for both farmer-owned and CCC-owned commodities, embraced three alternative plans: Under Plan No. 1, CCC would guarantee not to exceed 75 percent occupancy of new commercial storage facilities for 3 years, at the end of which time the guaranteed occupancy level would drop

to 40 percent for the next 2 years. Plan No. 2 would guarantee 60 percent occupancy for 5 years. Plan No. 3 would guarantee 50 percent occupancy for 6 years. Approval of plans for each proposed structure and an agreement with CCC were required of those using the program. In June, 1953, net acceptance under the program totalled 201 million bushels.

At the same time attention was called to legislation which permitted farmers and warehouse operators to make amortization deductions for grain storage facilities over a period of 60 months instead of the normal life of the building in order to encourage additional storage to be built.

Again in 1953, arrangements were completed with the Maritime Commission for the use of 305 ships of the reserve fleet, providing a capacity of 69 million bushels, as emergency grain storage. Of the 305 vessels, 75, having a capacity of 17 million bushels, were anchored in the Hudson River in New York; 100, holding 22 million bushels, in the James River in Virginia; and the remaining 130, having a capacity of 30 million bushels, were moored near Astoria, Oregon and Olympia, Washington.

Action also was taken to improve the overall storage situation at the farm level.

In 1953, "reseal" programs were established for 1953-crop corn, oats, and wheat. In 1954, the reseal programs were broadened to cover 1953-crop corn, oats, wheat, rye, barley, grain sorghums, and flaxseed. Under the 1954 program,

farm-stored stocks of the seven commodities could be resealed for another program year after the original 1953-crop loans matured, and purchase agreements on the commodities, held in farm storage could be converted to price-support loans. Storage payments to be made to farmers who resealed their 1953 crop were established at the following rate; corn, 15 cents per bushel; oats, 11 cents per bushel; barley, 15 cents per bushel; flaxseed, 16 cents per bushel; wheat, 13 to 15 cents per bushel; rye, 14 to 16 cents per bushel; grain sorghums, 26 to 28 cents per hundredweight.

During the 1950's there were a number of rapid and far-reaching changes in the grain storage situation in the United States with tremendous increase in stocks of grain stored in off-farm positions. This was due to revolutionary advances in agricultural technology sending production racing ahead of demand. During this time commercial grain storage space capacity increased from around 2.2 billion bushels to an estimated 4.7 billion bushels by the end of 1959. CCC bin storage capacity increased from about 44 million bushels capacity to about 990 million bushels after completion of the bin purchase program in 1956.

Generally, more than 90 percent of the grain stored at any one time in CCC-owned bins has been corn, to a lesser extent wheat, and with relatively small amounts of other grain. Therefore, the history of CCC bin storage is primarily the storage of corn. The following table gives figures of agricultural statistics that most vividly illustrate the phenomenal increase in farm productivity of corn and resulting storage problem:

ILLUSTRATION OF INCREASE IN CORN
PRODUCTIVITY OF STOCKS CARRIED OVER
(From Agricultural Statistics)

YEAR	Yield Per Harvested Acre (Bu.)	All Corn Production (1,000,000 Bu.)	Acres Harvested (1,000,000 Acres)	Oct. 1 Stocks Off-Farm (1,000,000 Bu.)
1935	24	2299	96	-
1940	28	2457	86	-
1945	33	2881	87	2
1948	42	3682	84	11
1950	37	3075	82	374
1953	40	3210	80	439
1956	46	3455	75	865
1958	51	3800	73	1,126

At one time or another, during the peak period of the CCC bin storage operation, 25 States had some CCC-owned bins. The peak period for bin site occupancy was 1960, when total stocks amounted to 748,344,000 bushels of grain. As may be noted on the accompanying chart, from this point stocks declined with the exception of 1968 and 1969. Again in 1970 stocks started to decrease and by August 1, 1974, commodities had been removed from the remaining sites.

Prior to April 1, 1963, the sale of CCC-owned structures was limited almost entirely to unserviceable structures. On April 1, 1963, the CCC Board of Directors approved a recommendation that serviceable structures be disposed of on a limited basis in areas where this type of storage had not been used for several years and there was no apparent need for the structures in the foreseeable future. CCC-owned storage capacity was reduced through sales by about 18 million bushels through 1963.

Beginning January 1, 1964, the disposition of CCC bins was greatly accelerated and continued at a rapid rate until the program was temporarily halted in 1968. During the period, CCC disposed of 579,683,100 bushels of storage. Farmers purchased most of the structures, many of which were financed under the Farm Storage Facility Loan Program. In addition to scheduled disposal program through sales, over the years storage space had been further reduced by approximately 23 million bushels through casualties, conversions to equipment storage structures, transfers to other agencies, etc. By 1968, overall storage had

been reduced to approximately 381,711,166 bushels. During this period, the storage program was completely liquidated in Colorado, Florida, and Kentucky. At the time the disposition program was halted in 1968, CCC-owned space had been reduced about 60 percent from its peak of 990,000,000 bushels in 1956.

Beginning in the fall of 1970, favorable market conditions permitted a considerable volume of bin site grain to be sold. These sales resulted in a substantial reduction in bin site storage utilization. As a result of the reduced inventory, it was incumbent upon the Department to again review its need for storage capacity.

Late in 1970, the Department conducted a survey through coordinated efforts of State, county, and Washington offices. As a result of this survey, a determination was made to further reduce the overall CCC-owned storage capacity.

Commencing in 1971, an accelerated bin sales program was put into effect. During 1971, 1972, 1973, and 1974, structures were offered and sold to farmers to be used for on-farm storage. During this period, demand was high which resulted in most instances in a very good return to CCC. There were reports of 3250 bin size structures selling for over \$1200.00 and a large number of sales averaging \$600.00 to \$700.00. This sales program concluded in early October, 1974, with the sale of the last grain storage structure. There still remained 31 bins in Virginia with a capacity of 1,166,000 bushels located on 8 bin sites. The structures were used to store peanuts and served a very beneficial purpose over the years. These structures were sold at

public auctions during 1975. This brought to an end a program that had served a very important place in American agriculture during the years when farmers ingenuity and production outstripped their ability to satisfactorily dispose of their commodities. Despite the fact that this was a very complicated and far-flung program encompassing many States and nearly one billion bushels of storage, it was administered successfully and economically through the dedication of many years of hard work and perserverance involving many State and county ASCS personnel.

BIN STORAGE GRAIN INVENTORIES
DECEMBER 31 OF EACH YEAR
(Grain Figures in Thousands of Bushels)

Year	CORN	WHEAT	OATS	BARLEY	RYE	GRAIN SORGHUM	SOY BEANS	FLAX	TOTAL
1949	13,923	-	-	-	-	-	-	---	13,923
1950	304,161	1,924	137	1,186	2	2,816	140	5	311,001
1951	304,133	1,318	206	397	3	711	-	4	306,772
1952	242,398	3,969	171	601	-	72	-	1	247,212
1953	330,454	16,004	291	27	11	14	276	14	347,091
1954	509,999	58,633	12,253	5,554	1,615	1,601	-	1	589,656
1955	578,508	53,432	9,324	1,306	670	5	3	1	643,249
1956	661,201	49,307	5,550	2,027	69	4	-	---	718,158
1957	638,782	36,314	945	1,827	9	13	-	---	677,890
1958	639,594	37,030	4,439	10,878	145	2,279	1,972	---	696,337
1959	571,641	38,338	2,039	13,155	326	3,839	769	---	630,134
1960	678,554	40,247	1,067	13,244	403	5,259	590	---	748,344
1961	667,317	25,147	598	12,755	138	5,314	-	---	711,269
1962	556,459	21,583	1,965	7,419	74	4,810	261	---	592,575
1963	411,367	27,151	3,776	13,129	127	4,017	14	3	459,593
1964	419,593	11,296	5,754	8,649	69	4,549	8	---	449,922
1965	299,391	10,650	0,406	6,057	584	4,702	-	---	330,793
1966	108,591	3,925	7,232	4,786	605	4,632	-	---	129,772
1967	97,845	761	6,667	3,901	425	4,572	-	---	114,173
1968	149,154	758	6,656	3,929	519	4,600	4,186	---	169,705
1969	144,332	937	7,968	4,915	412	4,586	15,480	---	178,634
1970	97,366	1,932	11,396	5,131	529	4,602	4,561	---	125,493
1971	29,959	2,023	11,347	4,152	453	41	2	---	47,979
1972	26,096	1,827	8,254	2	227	46	-	---	36,453
1973	28,274	1,812	5,079	-	199	45	-	---	25,429

ALL GRAIN REMOVED FROM BIN SITES BY 8-1-74

CCC GRANARY STORAGE PROGRAM COSTS

<u>Fiscal Year</u>	<u>Cost</u>
1950	\$14,602,454
1951	10,206,961
1952	10,200,471
1953	8,199,368
1954	25,622,512
1955	34,576,091
1956	23,440,504
1957	32,837,648
1958	34,198,604
1959	28,686,863
1960	25,066,817
1961	29,223,228
1962	29,812,371
1963	31,207,735
1964	27,312,622
1965	25,047,763
1966	21,361,242
1967	12,476,405
1968	8,647,580
1969	11,046,000
1970	12,230,000
1971	13,994,000
1972	8,355,000
1973	6,708,000
1974	7,402,000



EVER-NORMAL GRANARY AT JAMESTOWN, N.D.

This photo shows steps in construction from the foundations in the foreground to the finished bins in the background, many of which were already filled with grain.

PURCHASE OF STRUCTURES, NONEXPENDABLE EQUIPMENT, AND
ESTABLISHMENT OF BIN SITES

From 1949 to 1953, CCC purchased structures from manufacturers on a sealed-bid basis. Many different types and sizes of grain storage structures were acquired. Materials varied between aluminum, steel, wood, and concrete. Capacities ranged from small walk-in type bins (1,670 bushel capacity) to large flat structures (40,000 to 50,000 bushel capacity). Due to the emergency nature of these purchases, particularly in 1949, it was not always possible to acquire the best types of structures for grain storage.

Some structures were purchased f.o.b manufacturer's plant and erected with personnel on the county office payroll. Others were bought erected on bin sites by the manufacturer. A summary of bin purchases may be found on page 19.

Beginning in 1953, agricultural engineers of the Department developed plans for a "round standard" bin, 3,250 bushel capacity, determined by them to be the most desirable type structure for the storage of grain by CCC. Bin manufacturers submitted bids for furnishing this type bin to CCC. The round standard bin was modified in 1954, 1955, and in 1956, to include other desirable features developed through experience in grain storage. The accompanying chart gives a breakdown of purchases by year.

Structures were for the most part erected on land leased on behalf of CCC by county committees. Sites were generally leased from farmers, warehousemen,

and other landowners. Wherever possible, leases were arranged for 10 years with a 10-year renewal option, and an option to purchase the site. Many leases, however, were for 5 years, with a 5-year renewal option, and no purchase option since this was the best obtainable under the circumstances.

Some sites were purchased outright by CCC, ^{however,} ~~but since~~ purchase was used only as a last resort. (See attached chart on page 19).

Leasing arrangements sometimes forced CCC to move storage structures when an agreement for extension could not be reached on terms acceptable to CCC. In some cases structures were moved from one site to another as production patterns changed and commercial storage became available at one location or unavailable at another location.

It was necessary in the operation of bin sites for CCC to purchase equipment, i.e., trucks, augers, mowers, tractors, fumigant pumps, etc. Although most grain was placed in and removed from structures by contract with local warehousemen, this service was not always available at all sites or considered reasonable in cost. In these instances, ASCS personnel provided the labor. Electricity was installed on most bin sites and aeration units purchased for use in most of the bins. This aeration equipment was of a capacity and type to serve in the maintenance of grain. CCC operated no drying equipment.

A breakdown summary by year gives the number and type of structures purchased:

1939

The steel bins purchased by CCC in 1939 were of 11 different designs varying from 944 bushels to 2306 bushels capacity, which had been manufactured previously to meet farm storage needs. This purchase covered 40,909 bins with approximately 76 million bushels capacity.

1940

In 1940 the steel bins purchased were standardized on a 2730 bushel structure manufactured to meet CCC specifications and covered 22,020 bins with approximately 60 million bushels capacity.

1942 - 1949

During 1942 about 78 thousand wooden bins with a capacity of approximately 156 million bushels were bought by CCC and subsequently sold to producers for farm storage.

Additional sales of steel bins were made to producers for farm storage between 1942 and 1949, so that by July 1, 1949, the number of bins owned by CCC had been reduced to approximately 17,500 with a bushel capacity of approximately 44,000,000.

1950

A survey was made by CCC early in 1950 to determine the need for additional bins. Based on the expectation that about 450 million bushels of grain from the 1949 crops would be delivered to CCC and that available commercial storage space would be in the neighborhood of 162 million bushels, CCC purchased 32,895 bins containing approximately 177 million bushels capacity the same year.

1952

In order to provide storage in the Southwest so that farmers could participate in the 1952 peanut price support program 52 grain bins with a capacity of just under 2 million bushels were purchased during 1952.

1953

The 1953 bin purchase of 16,520 bins with capacity of 96 million bushels was made in order to make price support more effective by providing for adequate storage. The need for additional space was made more accurate because of the announced resale program for farm-stored crop corn and oats.

Producers were encouraged to continue to erect storage on their farms through loan programs.

1954

With huge carryover stocks from former crops already on hand, and the prospect of large takeovers from the 1953 crop it was necessary to again increase the number of CCC bins. Accordingly, 54,338 bins having a rated capacity of 206 million bushels were purchased for areas where commercial facilities were limited.

1955

After surveys in the leading grain States with storage industry representatives, State and ASC officials and others, it was decided to purchase an additional 12,515 bins with 40.7 million bushels capacity. These bins were used in four States where commercial storage space was not available.

1956

The extremely heavy movement of 1955 crop grains into the price support program indicated a major storage problem for CCC in the fall of 1956. Accordingly, 33,526 bins having a capacity of 109 million bushels were purchased.

SUMMARY OF BIN PURCHASES BY YEAR
1939 - 1956

Year Purchased	Number of Bins	Bushel Capacity	FOB Cost 1/	Average Per Bushel
1939	40,909	76,295,000	6,189,195.00	8.11¢
1940	22,020	60,144,600	3,495,555.23	5.81¢
1942	78,437	156,259,301	19,981,469.00	12.79¢
1949	74,221	328,365,388	57,735,183.06	17.58¢
1950	32,895	176,668,356	28,950,456.50	16.39¢
1952	52	1,999,626	579,706.44	28.99¢
1953	16,520	96,211,635	15,940,017.00	16.57¢
1954	54,338	206,079,859	31,697,225.65	15.38¢
1955	12,515	40,673,750	7,445,184.05	18.30¢
1956	33,526	108,959,500	32,506,598.95	29.83¢
TOTAL	365,433	1,251,627,015	204,520,590.88	16.34¢

1/ FOB cost except for 1952 and 1956 when bins were contracted for on an erected basis.

(3/12/57)

RECORD OF BIN SITE PURCHASES

<u>STATE</u>	<u>COUNTY</u>	<u>SITE</u>	<u>NO. OF ACRES</u>	<u>AUTHORIZED PURCHASE PRICE</u>	<u>DATE DEED RECORDED</u>
<u>1/</u> Florida	Alachua	Newberry	2.63	\$ 2,500.	3-2-61
Illinois	McDonough	Rushnell	4.1	3,150.	10-25-54
	Macon	Macon	2.9	3,500.	11-8-54
	Piatt	Cerro Gordo	.8	750.	12-4-54
	Logan	Mt. Pulaski	1.03	2,000.	2-9-55
	Livingston	Flanagan	1.7	2,550.	9-1-59
	Shelby	Windsor	4.0	2,894.	3-1-60
	Macoupin	Carlinville	2.5	2,468.	6-5-62
	Clinton	Carlyle	1.51	1,510.	6-5-62
	Will	Spencer	2.0	4,000.	9-28-62
	Peoria	Trivoli	1.0	750.	10-31-62
	Will	Goodenow	3.0	3,000.	
	Will	Normantown	1.5	1,000.	
	Macon	Niantic	4.52	5,424.	
	La Salle	Earlville	1.77	2,000.	5-14-65
Iowa	Handcock	Woden	2.19	1,500.	11-6-61
	Adair	Adair	1.06	2,000.	2-6-61
	Tama	Tama	2.8	1,750.	
	Wright	Clarion (Robson)	0.9	1,500.	10-21-63
Minnesota		New Richland	10.00	3,000.	7-26-63
Missouri	Saline	Marshall	6.0	2,100.	10-22-54
	Grundy	Tranton	1.7	2,500.	11-8-54
	Andrew	Savannah	2.0	1,300.	3-2-55
	**Clark	Kahora	7.0	1,100.	
Nebraska	Antelope	Clearwater	1.7	1,300.	5-9-55
	Dawes	Crawford	6.5	1,000.	8-12-55
	Boyd	Spencer	1.82	200.	12-30-60
Ohio	Seneca	Tiffin	2.1	2,700.	1- -54
	Sandusky	Clyde	1.00	1,000.	2-30-54
	Preble	Easton	5.0	4,000.	9-30-54
	Richland	Shelby	9.9	2,200.	N. A.
	Ross	Chillicothe	2.253	4,400.	
	Muskingum	Trinway	1.0	500.	
So. Dakota	Gregory	Herrick	2.0	800.	10-8-59
	Pennington	Underwood	3.1	1,000.	5-20-60
	Clark	Clark	4.4	2,200.	7-29-63

1/This site was purchased upon recommendation of the Oils and Peanut Division. The structure, which was moved to this site, was ^{acquired} ~~acquired~~ by foreclosure under the Farm Storage Facility Loan Program. ~~It has been used for peanut storage.~~

** Two separate sites of five and two acres purchased October 15, 1965, and April 12, 1966.

STORAGE COSTS AND QUALITY MAINTENANCE - BIN SITE GRAIN
VERSUS COUNTRY WAREHOUSE GRAIN

An exhaustive analysis of fiscal records to determine the costs of the bin site operations was conducted by the Department for fiscal years 1959 and 1960. This work extended from the national to the county level in those States with bin sites. All costs for the operation of the sites, amortization of structures, maintenance of sites and grain, interest on the capital investment and administrative overhead were included in the survey. This cost analysis for the year 1959 was reviewed by one or more Congressional committees.

House Report No. 2220, 86th Congress, 2nd Session, showed a storage cost of 5.12 cents per bushel for all grain in store, exclusive of shrinkage and deterioration, for the fiscal year 1959.

Shrinkage, based on a 10-year history, of all bin sites that were emptied of a particular kind of grain and covering a total of about 281 million bushels, was computed to cost 0.68 cents per bushel per year. In an analysis of the incoming and outgoing grades for 105 bin sites from which all corn was removed in forty Nebraska counties, January 1 to July 31, 1959, deterioration was calculated at 0.317 cents for the fiscal year. Terminal market discounts and average prices received by farmers were used in this determination. Shrinkage and deterioration on this basis would be 0.995 cents per bushel per year. House Report No. 2220 reflected a cost for shrinkage and deterioration

based on estimates furnished by the Department, at $1\frac{1}{2}$ cents per bushel per year.

The handling charges for fiscal year 1959 were calculated at 3.91 cents per bushel for handling into bin sites, and 2.95 cents per bushel for handling out, a total of 6.86 cents per bushel. Rounded off to 7 cents and, based on a $3\frac{1}{2}$ -year average storage period, handling was determined to have an allocated cost of about 2 cents per bushel per year. In most instances, the handling (filling and emptying bins) of grain at bin sites is performed under contract by country warehousemen.

Based on 5.12 cents per bushel for storage, 1 cent for shrinkage and deterioration, and 2 cents for handling, the total cost of using bins was 8.12 cents per bushel of grain in storage for fiscal year 1959. This compared to 14.9 cents per bushel for comparable services on corn stored under the Uniform Grain Storage Agreement.

A study for the fiscal year 1960 was conducted in a similar manner as for the fiscal year 1959. These costs also are shown in the following charts on page 25.

The cost of storing a bushel of grain one year depends somewhat on the percentage of occupancy for that year. The higher cost per bushel for storage in the fiscal year 1960 may be partially due to an average occupancy of about 35 million bushels less than for fiscal year 1959. While no official

studies have been conducted since the 1960 fiscal year, it would be reasonable to assume that the cost of storage has risen in line with the increased cost of labor, maintenance materials, and equipment. This is substantiated by the accompanying cost comparisons on pages 27 and 28 which are based on Fiscal Division (ASCS) data.

Questions have been raised concerning the ability of CCC to maintain the quality of grain stored in bin sites. In the operation of this program maintenance practices such as those used by prudent warehousemen were followed. The grain was inspected at monthly intervals or more often if necessary. Most bins were equipped with aeration systems. The grain was turned, screened or fumigated when necessary. About 90 to 95 percent of the grain stored at these sites was corn. To illustrate the degree of success attained in this bin site program a comparison of the out-turn grades on corn shipped from both warehouses and bin sites located in the States of Illinois, Indiana, Iowa, Michigan, and Ohio are used.

1. During the period October 1961 - June 1962, the records show that of some 36.5 million bushels of corn (18,293 carloads) loaded out of bin sites on loading orders, 68.1 percent was graded No. 1, 2, or 3.
2. During this same period about 130 million bushels of corn (65,439 carloads) were loaded out of country warehouses, 73.8 percent of which graded No. 1, 2, or 3.

State office records covering shipments of corn from bin sites in all of the major corn producing States show that during the year 1957 through

1961, approximately 459 million bushels of corn were shipped from bin sites, 73.4 percent of which graded No. 1, 2, and 3.

Taking into consideration the age of corn delivered to CCC, the characteristics of our grain grading system and other factors, it appears to knowledgeable people that grain quality was maintained in bin sites in a manner favorably comparable with the same activity in commercial storage. It must be noted that CCC policy permits a warehouseman to refuse grain being delivered by producers in satisfaction of loans. In some years, such as 1968 when the 1967 crop was of exceptionally low quality, a large quantity of low-grade grain was taken into bin sites to avoid dumping it in the open market.

Since large quantities of corn were stored in CCC bin sites for many years at a time, there often arose a question as to the feeding value of the commodity. One feeding test run on 40 head of steers by the Ohio State University on corn that was six years old found that there was no significant difference in the feeding value between ages of shelled corn. This was in respect to average daily gain, feed requirement per unit of grain, grades, and dressing percentage.

STORAGE COST COMPARISON
CCC BIN SITES AND CHARGES
UNDER THE UNIFORM GRAIN STORAGE AGREEMENT

	CCC BIN SITES		UNIFORM GRAIN
	<u>1959 FY</u>	<u>1960 FY</u>	<u>1/ STORAGE AGREEMENT</u>
Expense Per Bushel for Storage	6.12¢	6.98¢	13.505¢
<u>2/</u> Allocated Handling Cost	2.00	2.00	1.429
TOTAL Per Bushel Per Year	<u>8.12¢</u>	<u>8.98¢</u>	<u>14.934¢</u>

1/ The UGSA charges shown are based on the Schedule of Rates for handling and storing truck corn since 90% to 95% of the grain stored at bin sites usually consists of corn.

2/ In most instances the handling (filling and emptying bins) at bin sites is performed under contract by country warehousemen. Handling charges for Fiscal Year 1959 were calculated as 3.91¢ per bushel for handling into bins sites, including weighing and loading into bins, and 2.95¢ per bushel for handling out, including emptying bins and trucking to warehouse. These figures also include costs of site and scale attendants and out-of-doors supervision. The total of 6.86¢ per bushel for handling rounded off to 7¢, and, based on a 3½ year average storage period, is allocated at 2¢ per bushel per year. Likewise, the UGSA in and out handling rate for truck corn of 5¢ per bushel is allocated on the basis of 3½ years.

DATA SOURCES, COST OF STORAGE IN CCC BIN SITES - 1963 AND 1964 FISCAL YEARS

1. Average capacity and average occupancy of CCC bin sites were obtained from records of the Bin Storage Division. The average capacity is based on the actual space (not basis of USABLE space).
2. Administrative cost figures were obtained from Operations Branch, Budget Division, ASCS. These include all maintenance and operating costs for storage and in and out charges. Figures for bushels received and withdrawn each of the fiscal years were obtained from Financial Analysis Branch, Fiscal Division, ASCS.
3. Figures representing fixed costs for depreciation and amortization were obtained from Fiscal Division, ASCS.
4. Interest figures on fixed property investment were obtained from Fiscal Division
5. Estimate of deterioration in-store is based on national withdrawal grades for approximately 193,000,000 bushels of corn (since corn is largest portion of inventory) and an average storage period of 3 1/2 years.
6. Average shrinkage factor (all grains) is 1.31 percent and is based on 10-year history of about 6,300 bin site cleanouts covering approximately 281 million bushels of grain.
7. Dollar receipts for bin rentals reported by Fiscal Division, ASCS.

(3/65)

COST OF STORAGE IN CCC BIN SITES
(Per Bushel Per Year)

ITEM	1963 Fiscal Year		1964 Fiscal Year	
	Dollars	Cents Per Bushel	Dollars	Cents Per Bushel
Average Capacity (Millions of Bushels) 1/		963.50		956.94
Average Occupancy (Millions of Bushels)		527.30		440.23
Average Occupancy (Percentage)		55%		46%
ITEM	1963 F. Y.		1964 F. Y.	
	Dollars	Cents Per Bushel	Dollars	Cents Per Bushel
Administrative Costs				
National	1,786,623	0.339¢	\$ 1,519,005	0.345¢
State	1,462,400	0.277	1,275,510	0.290
County (less handling charges)	20,314,175	3.852	22,118,742	5.024
2/County Handling Charges	9,431,160	1.789	3,918,370	0.890
CO, DPC, MFO	31,061	0.006	63,100	0.014
TOTAL ADMINISTRATIVE COSTS	\$33,025,419	6.263¢	\$28,894,727	6.563¢
Fixed Costs	\$11,339,789	2.151¢	\$10,785,910	2.450¢
Interest on Fixed Property Investment	3,038,899	0.576	2,943,772	0.669
TOTAL EXPENSES ON GRAIN IN STORE	\$47,404,116	8.990¢	\$42,624,409	9.682¢
Deterioration in Storage		0.610¢		0.610¢
Shrinkage		0.370		0.370
GRAND TOTAL CENTS PER BUSHEL PER YEAR		9.970¢		10.662¢
Less Bin Rentals Received and Prorated on a Total				
Average Occupancy Basis		-0.076¢		-0.310¢
Net Cost Per Bushel Per Year in Bin Sites		9.894¢		10.352¢

1/ Based on ACTUAL SPACE - No 10% reduction for inventory management purposes.

2/ Based on total bushels received and withdrawn at \$6 per bushel which is the average rate paid for filling and emptying bins under contract. A large percentage of this cost is paid to country warehousemen.

COST OF STORAGE IN CCC BIN SITES
(1965 Fiscal Year)

ITEM	1965 F.Y.
Average Capacity (Millions of Bushels) <u>1/</u>	902.5
Average Occupancy (Millions of Bushels)	426.9
Average Occupancy (Percentage)	47.3

	Dollars	Cents Per Bushel
Administrative Costs		
<u>2/</u> National	\$ 1,486,114	.348¢
State	1,477,798	.364
<u>3/</u> County	23,569,965	5.521
CO, DPC, MFO	60,013	.016
GRAND TOTAL ADMINISTRATIVE COSTS	\$26,602,890	6.231¢
<u>4/</u> Fixed Costs	10,065,059	2.358
Interest on Fixed Property Investment	2,956,226	.692
Total Expenses on Grain in Store	\$39,624,175	9.281¢
<u>5/</u> Deterioration Grain in Storage		.680
<u>6/</u> Shrinkage		.610
Total Cents Per Bushel Cost 1965 F.Y.		10.571¢
Less Bin Rentals Received (\$1,373,036)		.320
Net Cost Per Bushel		10.251¢

- 1/ Actual space in grain States - No .0% reduction for inventory management purposes.
- 2/ Includes Washington personnel salaries, printing, State office rents and fringe benefits.
- 3/ Includes costs of receiving about 37.8 million bushels of grain and withdrawing 109 million bushels. Most of this was performed by warehousemen under contract at about 2½¢ per bushel.
- 4/ Includes depreciation on structures, equipment and amortization of site improvements.
- 5/ Based on 1959 fiscal year study - 105 sites in Nebraska.
- 6/ Based on record of bin site cleanouts calendar years 1949 through 1958 inclusive.

GRAIN SHRINKAGE

A nominal shrinkage is recognized as a normal operating loss in the handling and storing of grain. Handling, sampling, and reduction in moisture content are the principal reasons for shrinkages at bin sites. For example, a drop of $1\frac{1}{2}$ percent in grain containing 14 percent moisture represents a loss in weight of about 2 percent.

Attached on page 33 is a chart that shows the shrinkages occurring at bin sites over a period of 18 years and covers the periods of 1949 through 1958, and 1949 through 1967 respectively.

The shrinkage in bin sites was less than in commercial warehouses as reported in a memorandum dated July 10, 1962, from the Director, Evanston Commodity Office to the Deputy Administrator, Commodity Operations. The memorandum stated as follows: "The results of the bin loadout in the Evanston Commodity Office area are showing that the shrink on corn held for longtime storage in aerated flat buildings is about 1 percent for each year of storage, for an average of about 3 percent and a 5 percent shrinkage is not uncommon." The average storage period for corn in bin sites at that time was $3\frac{1}{2}$ years and the structures were aerated. This, together with the 15-year shrinkage history of 1.67 percent for corn, speaks well for the job done by State and county committees in the operation of bin sites.

Prior to 1966 shrinkages were written off the inventory after all of the particular kind of grain involved was removed from a bin site. In view of the large quantities of grain (mostly corn) generally stored at bin sites,

this method was considered adequate. However, in the latter part of 1966, due to the rapid reduction of inventories, it was determined that the inventories should be adjusted annually. Further such adjustment should be made on the basis of the grain measurements determined under the annual physical inventory. The principal purpose was to bring the accounting records more realistically in line with the actual inventories.

On March 4, 1966, a shrinkage adjustment of 28 million bushels was made in the corn inventory. This was based on the corn shrink factor of 1.67 percent (see attached breakdown). All grain inventories were adjusted to coincide with the 1967 physical inventory. This does not mean there was a 28 million bushel change in the amount of grain that went into bin sites. It simply means that fiscal records were updated to reflect normal shrinkage that had occurred over a long period in many million bushels of corn that had moved into and out of bin sites which were never completely emptied. On page 31 the historical record of the Central City site in Nebraska will shed some light on the amount of shrinkage realized over a period of 28 years.

The historical record of the Central City Site in Merrick County is as follows.
This site received grain in 1949 and was not completely emptied until June 1974.

Calendar Year	Bushels Corn Received	Bushels Corn Withdrawn	Bushels Corn Screenings Withdrawn	Bushels Balance
1949	113,516	---	---	113,516
1950	161,115	14,281	---	260,350
1951	46,365	61,494	876	244,345
1952	---	56,485	1,849	186,011
1953	274,237	---	619	459,629
1954	211,243	196,789	311	473,772
1955	59,464	---	2,071	531,165
1956	14,164	---	2,300	543,029
1957	249,785	314,111	2,042	476,661
1958	46,755	121,635	1,241	400,540
1959	8,712	76,310	306	332,636
1960	160,789	8,722	---	484,703
1961	180,951	221,467	---	444,187
1962	118,094	264,461	---	297,820
1963	6,578	68,325	---	236,073
1964	1,309	---	---	237,382
1965	---	49,481	503	187,398
1966	---	27,242	---	160,156
1967	36,864	---	422	196,598
1968	---	---	754	195,844
1969	---	---	---	195,844
1970	---	36,242	---	159,602
1971	---	---	---	159,602
1972	---	---	---	159,602
1973	---	---	405	159,197
1974	---	140,497	---	18,700
TOTALS	1,689,941	1,657,542	13,699	-18,700 bu. (1.1% shrinkage)

BIN SITE CLEANOUTS
(1949 Through December 31, 1967)

<u>Commodity</u>	<u>No. of Cleanouts</u>	<u>Total Bu. Received</u>	<u>Total Bu. Removed</u>	<u>Difference</u>	<u>% Loss or Shrinkage</u>
Corn	4,425	1,108,866,244	1,090,371,342	18,494,902	1.67
Wheat	2,069	106,066,680	105,529,634	537,046	0.51
Oats	1,837	36,157,948	35,796,160	261,788	0.73
Varley	1,539	29,449,492	29,262,023	187,469	0.64
Rye	754	5,235,505	5,210,189	25,316	0.48
Grain Sorghum	604	7,604,085	7,545,491	58,594	0.77
Soybeans	436	2,977,522	2,952,661	24,861	0.83
Flax	21	93,502	93,050	452	0.48
TOTAL	<u>11,685</u>	<u>1,296,350,978</u>	<u>1,276,760,550</u>	<u>19,590,428</u>	<u>1.51</u>

CORN.

<u>State</u>	<u>No. of Cleanouts</u>	<u>Total Bu. Received</u>	<u>Total Bu. Removed</u>	<u>Difference</u>	<u>% Loss Or Shrinkage</u>
Colorado	5	27,315	27,201	114	0.42
Illinois	1,681	465,196,893	458,716,261	6,480,632	1.39
Indiana	453	67,485,650	65,971,727	1,513,923	2.24
Iowa	648	308,514,495	302,501,752	6,012,743	1.95
Kansas	339	16,803,203	16,588,621	214,582	1.28
Michigan	26	8,001,443	7,894,944	106,499	1.33
Minnesota	204	91,386,410	89,966,621	1,419,789	1.55
Missouri	205	33,477,164	32,460,978	1,016,186	3.04
Nebraska	249	60,296,850	59,558,888	737,962	1.22
North Dakota	62	2,445,896	2,415,407	30,489	1.25
Ohio	207	18,776,415	18,481,658	294,757	1.57
South Carolina	2	8,654	8,522	132	1.53
South Dakota	284	31,104,596	30,523,896	580,700	1.87
Wisconsin	60	5,341,260	5,254,866	86,394	1.62
Total	4,425	1,108,866,244	1,090,371,342	18,494,902	1.67

WHEAT

Colorado	39	2,279,126	2,269,886	9,240	0.41
Illinois	246	8,158,005	8,127,913	30,092	0.37
Indiana	4	1,528	1,517	11	0.72
Kansas	299	24,301,917	24,219,997	81,920	0.34
Minnesota	42	1,316,072	1,305,488	10,584	0.80
Missouri	77	2,187,624	2,172,459	15,165	0.69
Montana	37	3,101,073	3,091,813	9,260	0.30
Nebraska	424	14,127,683	14,051,473	76,210	0.54
North Dakota	493	23,081,488	22,948,194	133,294	0.57
Ohio	18	1,500,069	1,492,393	7,676	0.51
Oklahoma	4	236,669	235,766	903	0.38
South Carolina	10	193,222	192,795	427	0.22
South Dakota	373	25,575,386	25,413,222	162,164	0.63
Wisconsin	3	6,818	6,718	100	1.47
Total	2,069	106,066,680	105,529,634	537,046	0.51

OATS

Colorado	39	17,267	17,162	105	0.61
Illinois	87	696,326	691,067	5,259	0.76
Kansas	158	1,163,991	1,157,562	6,429	0.55
Michigan	1	231,121	227,072	4,049	1.75
Minnesota	142	5,125,931	5,081,424	44,507	0.87
Missouri	17	37,436	37,260	176	0.47
Montana	8	27,333	27,257	76	0.28
Nebraska	107	542,163	539,184	2,979	0.55
North Dakota	574	9,416,317	9,349,900	66,417	0.71
Ohio	56	217,742	216,399	1,343	0.62
South Carolina	9	1,134,776	1,129,766	5,010	0.44
South Dakota	634	17,427,693	17,302,591	125,102	0.72
Wisconsin	5	19,852	19,516	336	1.69
Total	1,837	36,057,948	35,796,160	261,788	0.73

PARLEY

<u>State</u>	<u>No. of Cleanouts</u>	<u>Total Bu. Received</u>	<u>Total Bu. Removed</u>	<u>Difference</u>	<u>% Loss Or Shrinkage</u>
Colorado	31	974,291	968,438	5,853	0.60
Illinois	1	422	424	+ 2	+0.47
Kansas	206	1,273,186	1,265,825	7,361	0.58
Minnesota	67	2,998,936	2,978,945	19,991	0.67
Missouri	7	33,754	33,508	246	0.73
Montana	39	2,488,053	2,478,582	9,471	0.38
Nebraska	208	524,353	519,970	4,383	0.84
North Dakota	617	17,519,815	17,410,796	109,019	0.62
Ohio	3	1,241	1,225	16	1.29
South Carolina	2	10,230	9,991	239	2.34
South Dakota	358	3,625,211	3,594,319	30,892	0.85
Total	1,539	29,449,492	29,262,023	187,469	0.64

RYE

Colorado	14	90,942	90,379	563	0.62
Indiana	1	453	447	6	1.32
Kansas	76	220,026	219,062	964	0.44
Minnesota	2	50,533	50,570	+37	+0.07
Missouri	5	8,841	8,746	95	1.07
Montana	3	30,931	31,137	+206	+0.67
Nebraska	161	355,514	353,162	2,352	0.66
North Dakota	312	2,847,283	2,832,619	14,664	0.52
Ohio	5	2,879	2,888	+ 9	+0.31
South Dakota	175	1,628,103	1,621,179	6,924	0.43
Total	754	5,235,505	5,210,189	25,316	0.48

GRAIN SORGHUM

Colorado	4	49,826	49,679	147	0.30
Kansas	299	5,184,441	5,149,060	35,381	0.68
Minnesota	52	70,194	68,359	1,835	2.61
Missouri	182	1,608,378	1,601,498	6,880	0.43
Nebraska	66	691,183	676,834	14,349	2.08
South Dakota	1	63	61	2	3.17
Total	604	7,604,085	7,545,491	58,594	0.77

SOYBEANS

Illinois	3	2,539	2,522	17	0.67
Indiana	23	257,851	255,462	2,389	0.93
Iowa	168	1,869,721	1,855,896	13,825	0.74
Kansas	41	96,093	95,417	676	0.70
Missouri	31	145,663	143,423	2,240	1.54
Nebraska	108	385,470	380,710	4,760	1.23
North Dakota	12	87,757	87,468	289	0.33
Ohio	22	28,939	28,645	294	1.02
South Dakota	1	1,358	1,345	13	0.96
South Dakota	26	97,531	97,203	328	0.34
Wisconsin	1	4,600	4,570	30	0.65
Total	436	2,977,522	2,952,661	24,861	0.83

FLAX

<u>State</u>	<u>No. of Cleanouts</u>	<u>Total Bu. Received</u>	<u>Total Bu. Removed</u>	<u>Difference</u>	<u>% Loss Or Shrinkage</u>
Kansas	1	382	376	6	1.57
North Dakota	3	16,648	16,666	+18	+0.11
South Dakota	17	76,472	76,008	464	0.61
Total	21	93,502	93,050	452	0.48

LOCAL SALES AND SHIPMENTS OF BIN SITE GRAIN

During the years 1949 - 1956, both CCC and the commercial grain trade continued to expand storage capacity in an effort to handle the increasing volume of grain delivered by producers in satisfaction of price support loans and purchase agreements. It was necessary during this period to dispose of bin site grain through local sales, shipment for reconcentration in terminal and subterminal type storage and on-track sales by commodity offices. This was done in order to create sufficient storage space for delivery to CCC of the next crops of grain.

Nonstorable bin site grain was sold by CCC at the highest of the most advantageous terminal price, discounted to an in-store local warehouse basis or the prevailing in-store local sale price. Warehousemen who purchased bin site grain received credit for local warehouse handling costs and markup.

Storable bin site grain was sold at not less than the statutory minimum price, under Section 407 of the Agricultural Act of 1949, in-store at country locations for truck-received grain with warehousemen receiving the same handling charge credits as for nonstorable grain.

On August 23, 1961, the CCC Board approved a modification of the bin site grain pricing policies described above. Such modification provided for a deduction of a "constructed cost" factor from all market price determinations with all bin site grain to be sold on an f.o.b. bin site basis, buyers conveyance loaded. The result of this policy was to place non-

warehouse buyers on the same in-store pricing basis as warehousemen.

The constructed cost factor was not applied to sales of storable bin site grain for which specific sales and pricing authorizations were provided, e.g., the Livestock Feed Program and the 1961 Feed Grain Program.

Under the 1961 Feed Grain Program, CCC could sell grain to producers and accept their feed grain certificate in payment for such grain or could sell CCC-owned grain from its stocks against rights represented by pooled feed grain certificates (certificates for which producers elected to accept cash).

Pricing was based on the highest of the market price adjusted to the point of sale or the feed grain formula price. Sales against the 1961 and 1962 feed grain certificate pool were made at the highest of the market price or the county loan rate adjusted for quality plus a monthly markup (CCC carrying charge).

Bin site grain was sold at the Section 407 statutory price (negotiated sales) and also at the feed grain price (competitive bid sales). Beginning with the 1963 - 64 marketing year, the feed grain formula price was adjusted to reflect 105 percent of the applicable county loan rate plus the markup. During the 1965 - 66 marketing year, the feed grain formula was again adjusted to 115 percent of the applicable county loan rate plus the markup.

During the period 1964 through 1966, there were about 150 million bushels

of corn shipped from bin sites on load orders. Most of the corn shipped was sold by the commodity office or used to fill sales sold on a "to arrive" basis.

This heavy movement of bin site grain (mostly corn) substantially reduced bin site grain inventories and, as a result, reduced the utilization of CCC-owned structures. For example: On December 31, 1958, total bin capacity was about 987 million bushels. Total grain in store at that time was approximately 696 million bushels representing about 71 percent utilization. By December 29, 1967, bin capacity was reduced to about 463 million bushels and the total grain inventory was approximately 114 million bushels, representing 25 percent utilization. See accompanying chart on bin utilization broken down by year.

As the market price for grain began to decline, the latter part of 1966, the feed grain formula price for corn exceeded market prices in most areas. Consequently, very little bin site corn was sold or shipped. Most of the nonstorable bin site grain had already been disposed of. Remaining stocks were of good quality and could be kept for long term storage.

On January 1, 1967, bin site corn sales were limited by CCC to small quantities needed for local feed use because of adverse weather conditions.

Total inventory of bin site grain on December 31, 1968, was up to about 170 million bushels as the result of the delivery of grain to CCC-owned structures during 1968. Of the approximately 51 million bushels of corn delivered to bin sites during 1968, some 15 million bushels were graded below No. 3. It was necessary to accept this quality of corn for storage in bin sites since local warehouses either would not store this quality corn or did not have available space. Furthermore, to dump this corn on the market at takeover time would have further depressed the corn market and resulted in more corn being delivered to CCC under the proce support program.

By 1970, total inventory again started downward. Expanding exports coupled with adverse weather conditions causing higher market prices in 1971 and 1972 further depleted bin site inventories. In the early summer of 1974 the last of the commodities stored in bin sites were sold.

SUMMARY OF CCC-OWNED BIN STORAGE 1957-1974

	<u>Capacity</u>	<u>Percent Utilized</u>
1957	988,781,000	76%
1958	986,717,000	71%
1959	984,836,000	71%
1960	983,540,000	85%
1961	981,159,000	81%
1962	980,343,000	67%
1963	965,320,000	53%
1964	916,216,000	54%
1965	753,953,000	49%
1966	630,550,000	23%
1967	463,496,000	25%
1968	387,090,000	44%
1969	383,839,000	47%
1970	381,799,000	33%
1971	310,129,000	15%
1972	264,650,000	14%
1973	245,053,000	15%
1974	ALL STORAGE SOLD	

RESERVE FLEET SHIPS USED FOR GRAIN STORAGE

On July 6, 1949, the Department of Agriculture and the U.S. Maritime Commission announced that some ships from the reserve fleet would be used for emergency grain storage.

In order to help meet the need for additional temporary storage, twelve ships were prepared to handle the large grain crops being harvested. These twelve experimental vessels held approximately 3,200,000 bushels of grain. They were towed to piers in New York City for fitting by the Maritime Commission and then moved to elevator piers for loading. They were then returned to Jones Point anchorage for the duration of the storage period. The ships proved to make excellent storage facilities and as the need for additional storage arose, more ships were acquired for service.

At the peak use period for this type of storage, a total of 384 ships were in service. They had approximately 88,000,000 bushels of CCC-owned grain stored within their holds. These ships were located at Jones Point, New York, James River, Virginia, Astoria, Oregon, and Olympia, Washington.

As the need for emergency storage decreased, these ships were emptied and, by the early 1960's, they were no longer needed for the storage of grain.

BIN TRANSFER PROGRAM

Early in 1967, it was reported that many farmers in 15 Northeast, South-Central, and Southeast States could not participate in price support programs because there was insufficient storage available to them. In August, 1967, a bin transfer program was begun in Illinois, Indiana, and Iowa. Round standard steel bins were dismantled and shipped via truck to the 15 Eastern States where they were offered for sale to farmers on a competitive-bid basis. Minimum sales prices were based on the f.o.b. erected price at origin, plus cost of dismantling, cost of new nuts, bolts, and washers, and transportation costs. A total of 6,771 round steel bins with a capacity of about 22 million bushels were transferred to the Eastern States during 1967.

In April, 1968, concern was again expressed by farmers in the 15 Eastern States that their grain would be forced on the market at low harvest time prices due to lack of storage.

The bin transfer program was repeated and 3,300 round bins were transferred to eastern destination points. Minimum sales prices were adjusted using the cost data accumulated during the 1967 transfer program. This transfer program involved some round bins of lesser capacity than the 3,250 bushel capacity standard round bin and some aluminum bins.

The primary purpose of the bin transfer program was to encourage farmers to provide on-farm storage either through purchase of used CCC bins or the purchase of new bins under the Farm Storage Facility Loan Program.

The bin States for the most part had been selling bins locally on an erected basis. Therefore experience on the movement of bins had been very limited. Illinois and Indiana had some experience in dismantling and transporting bins to other locations for sale within their States. However, in retrospect their experience was insufficient to provide good estimates on costs of the operation.

In effect CCC was using costs based on small isolated dismantling operations done mostly by local labor and with CCC-owned equipment with what turned out to be an all-out program to move some 7,000 bins within a short period of 2½ months. However these were the only cost figures available at the time.

CCC was required to set costs before the movement was started. Such figures had to be based on the combined judgment and limited experience of the Bin Storage Division and the three ASCS State Offices. In order for the receiving States to estimate the number of bins that would be purchased by farmers they were given firm f.o.b. minimum prices in advance of the time shipment was started.

Following is the manner in which minimum bin prices were determined prior to the movement of bins to the Southeast and Northeast States:

MINIMUM FOB PRICE OF DOUBLE-ROW GRAIN BINS
LOCATED IN IOWA, ILLINOIS, AND INDIANA
(3250 BUSHEL CAPACITY - STEEL BIN)

Steel Bin and Small Aeration Unit -----	\$240.00
(Average of minimum prices established by these three States for 1967)	
Dismantling, Packaging and Loading -----	\$ 75.00
New Bolts, Nuts, and Neoprene Washers -----	\$ 60.00
Minimum FOB Price of Double-Row Steel Bin -----	\$375.00

The \$375.00 represented the average minimum price for the 3250 bushel steel bin loaded on trucks in the States of Iowa, Illinois, and Indiana.

The destination county added to the f.o.b. minimum price of \$375.00 the actual cost of transportation, plus the unloading cost. Thus the destination county could determine the minimum price for each bin as soon as it was unloaded.

Later in the bin movement program the Midwest States were authorized to ship single-row 3250 bushel steel bins. Minimum prices on these bins were established in the same manner as for the double-row steel bin except for a reduction of \$50.00 per bin which represented the average difference in minimum prices established by the three States for these bins in their own sales.

After the conclusion of the bin movement program, the three original States were instructed to total all costs in connection with the program and to issue a sight draft against CCC Capital Funds to pay for the administrative costs of the operation.

The reported actual costs by State on a bin basis are as follows:

REPORTED ACTUAL COSTS BY STATE ON A BIN BASIS

<u>State</u>	<u>Total Costs</u>	<u>Number of Bins Moved</u>	<u>Cost Per Bin</u>
Iowa	\$ 575,749.20	3020	\$ 190.64
Illinois	548,866.02	2250	243.94 <u>1/</u>
Indiana	<u>288,617.18</u>	<u>1500</u>	<u>192.41</u>
TOTAL	\$ 1,413,232.40	6770	\$ 208.99 <u>2/</u>

1/ The per bin costs exceeded the other States because of normally higher labor costs in Illinois. Furthermore, a substantial part of the labor force was furnished by North Carolina for which transportation and per diem were paid by CCC.

2/ This is a simple average cost per bin figure. The weighted average cost per bin is \$208.75.

A comparison of earlier cost estimates with the actual costs of the operation as reported by each of the three States showed the following breakdown:

The average actual cost per bin of \$208.75 as shown on the previous page includes \$60.00 for bolts, nuts, and neoprene washers purchased for each bin. When this cost is subtracted from \$208.75, the balance of \$148.75 represents the actual cost for dismantling, packaging and loading the bins. Therefore, the estimated cost of \$75.00 per bin for this phase of the operation must be compared to \$148.75 which was the actual average cost per bin as reported after completion of the bin movement program.

An estimate of \$74.00 set at the beginning of the program to cover dismantling, packaging and loading was based on the initial pilot program discussed in July of 1967. At that time CCC was advised to make plans to move about 1500 bins into the Southeast and Northeast. The 1500 bins were divided among the three States as follows: Iowa, 750; Illinois, 500; and Indiana, 250. Soon after the program was initiated, CCC was swamped with additional bin orders from the Southeast and Northeast. On the basis of these orders and the maximum number of bins which the three States felt could be dismantled and shipped by October 1, the goal was raised to about 7,000 bins.

This large increase of bins to be shipped required that the three States go all out to complete the job by October 1. There was little time for

planning the overall operation. Because of a shortage of trained labor it was necessary to work a large amount of overtime which was not anticipated in the original small pilot program. Further the States were required to hire high rental equipment such as cranes and boom trucks since the small amount of such equipment owned by CCC was entirely inadequate for the job.

These extra costs made it obvious that our earlier estimated costs were too low and it was too late to reprice the bins in the receiving States. Nevertheless because of the serious shortage of farm storage for the bumper crops to be harvested in the Southeast and Northeast it is impossible to estimate the value of this program to farmers in those States. Reports show that 99 percent of the used CCC bins were sold to farmers. In addition large numbers of new bins were purchased by farmers in these States from bin manufacturers firms for cash and under the Farm Facility Loan Program. A breakdown of sales by States may be found on page 51.

Final bin sales reports show that the bins moved under this program brought an average of \$24.00 per bin over the established destination minimum prices. This helped to defray the additional unforeseen costs brought on by the unexpected heavy demand for bins.

In 1968, the actual costs of the 1967 program as reported by the three States was used in computing minimum prices. This means that minimum prices for bins moved into other States was increased about \$75.00 per

bin. Thus, the minimum price on the 3250 steel double-row bin was increased from \$375.00 to \$450.00 p r bin.

The only other movement of bins on a large scale took place in Iowa in 1942.

During 1942 several large wheat States found themselves with a bumper crop and no storage. At this time Iowa transferred approximately 15,000 steel bins to these neighboring States. Records of this movement are very sketchy.

BIN MOVEMENT PROGRAM

1967 - 1968

<u>STATE</u>	<u>BINS SOLD</u>	<u>AVERAGE SALES PRICE</u>
Alabama	634	\$ 462.86
Delaware	60	497.85
Florida	364	458.90
Georgia	716	474.48
Kentucky	438	442.52
Maryland	197	477.24
Mississippi	80	473.44
New Jersey	199	508.79
New York	1143	522.70
North Carolina	2460	470.00
Pennsylvania	1014	505.68
South Carolina	888	466.50
Tennessee	1173	456.24
Virginia	550	497.33
West Virginia	<u>160</u>	<u>418.03</u>
TOTAL	16,076	\$ 475.50

CCC-OWNED STRUCTURE RENTAL PROGRAM

Over the years the rental of CCC-owned structures provided a very important service to both producers and warehousemen.

Starting in 1950 the structures were offered first to farmers in need of storage and then to cooperative associations, followed by commercial warehousemen.

These structures were rented using the full capacity of the structures as a basis for rental fees, regardless of the amount of grain stored in the structure. Over the years, there arose some complaints of this procedure from producers not having enough grain to fully fill a structure. This policy, however, was adhered to throughout the years of the bin rental program.

Rental fee rates varied over the years. The accompanying chart of rental fees shows the chronology of rental fees.

Rental fees from 1950 to the termination of the program brought CCC an income of about 32 million dollars. A breakdown of rental fees by year follows this section.

CHRONOLOGY - RENTAL AGREEMENT FEES

- 1-30-51 - Instruction 622-2. Rental fee flat charge of 7 cents per bushel for period ending 7-31-51.
- 5-25-51 - Instruction 622-2, Aux. 2. Rental fee 5 cents per bushel (7-12 months); 3 cents per bushel (1-6 months).
- 9-14-51 - Instruction 622-2. Rental fee $\frac{1}{2}$ cent per bushel per month, with 3 cents minimum.
- 6-26-52 - Instruction 622-2. Rental fee $\frac{1}{2}$ cent per bushel per month, with 1 cent minimum.
- 12-2-52 - Notice GR-26. Eliminated minimum fee.
- 12-2-53 - Notice GR-72. Rental agreement begins as of first day of month agreement is executed.
- 8-21-54 - Notice GR-397. Rental fee increased to $\frac{3}{4}$ cent per bushel per month.
- 12-31-58 - Handbook 7-GR, Amend. 3. Rental fee increased to $1\frac{1}{2}$ cents per bushel per month, effective 3-31-59.
- 8-17-60 - Handbook 7-GR, Amend. 4. Rental fee DECREASED to 1 cent per bushel per month.
- 6-24-64 - Notice BI-39. Beginning date of rental agreement shall be date lease is executed.
- 7-31-68 - Storage capacity of structures of 10,000 bushels or less shall be computed on the basis of 9 percent of the rated storage capacity rounded to the nearest hundred bushels. Example: $3250 \times 90 = 2,950$ rounded to 2,900 bushels.
- 7-22-70 - Structures of 10,000 bushels or less, shall be rated on the capacity of the structure. Handbook 1-BI, Rev. 2, Amend. 1.

INCOME FROM RENTAL OF
CCC-OWNED GRAIN STORAGE STRUCTURES

<u>Fiscal Year</u>	<u>Amount</u>	<u>Cumulative</u>
1950	\$ 229.32	\$ 229.32
1951	335,850.10	336,079.42
1952	433,935.95	770,015.37
1953	516,785.98	1,286,801.35
1954	584,143.74	1,870,945.09
1955	475,386.65	2,346,331.74
1956	710,782.76	3,057,114.50
1957	942,692.65	3,999,807.15
1958	1,509,984.35	5,509,791.50
1959	1,613,826.68	7,123,618.18
1960	464,731.34	7,588,349.52
1961	342,544.78	7,930,894.30
1962	405,992.07	8,336,886.37
1963	401,398.35	8,738,284.72
1964	1,362,628.89	10,100,913.61
1965	1,323,036.32	11,423,949.93
1966	1,603,422.08	13,027,372.01
1967	1,559,658.73	14,587,030.74
1968	2,286,995.24	16,874,025.98
1969	1,776,235.63	18,650,261.61
1970	1,922,712.23	20,572,973.84
1971	3,129,031.46	23,702,005.30
1972	4,645,488.00	28,347,493.30
1973	2,916,863.66	31,264,356.96
1974	624,577.77	31,888,934.73
1975	95,533.99	31,984,468.72



Auctioneer at work on sale day.

BIN SALES PROGRAM

When the bin sales program got started in earnest during the mid 1960's, States were requested to come up with a set goal of structures to be sold during the year. In general, State committees cooperated and an intensive and coordinated sales program was inaugurated.

States, in consultation with the Washington staff, arrived at a minimum price on structures. Farmers were given first priority in buying these structures and, by in large, responded in many instances of highly competitive bidding. Most sales were auctions planned and conducted by the local county committee. Dates of sale were cleared through the State office in order to coordinate all sales within the State.

Sales prices varied according to location, time of year, economy, quality of structure, and availability of new structures. Prices ranged from the minimum set by the State to as high as over \$1200.00 for the 3250 bushel size bin.

In some instances, farmers and groups of farmers came from over 1,000 miles away to purchase bins.

Most sales were conducted with the bins in place and sold with the buyer responsible for the dismantling and movement of the structure. However, some States that had State bin crews would go onto a site and dismantle the bins and sell them in this manner. Farmers in general liked this method and generally paid enough more for the service to make it profitable for the State.

In 1974, as an example, 6339 bins were sold in Iowa within nine months. In 1973, Illinois and Iowa sold over 33,000 bins. In 1973 alone, States sold over 51,000 bins with a capacity of 202,213,091 bushels. This will give the reader an idea of the magnitude of the bin sales program.

It should be pointed out that loans were available on the bins through the Farm Storage and Drying Equipment Loan Program. A large number of structures were financed through this program.

In some States local businesspeople offered to move bins on a contract basis for the farmers. This, too, proved to be a popular service and used by many farmers. Some bins were moved intact by helicopter.

During 1974, a strong demand was evidenced for the bin site equipment. Prices ran high with large numbers of tractors, trucks, and augers bringing more than the original purchase price. A factor in bringing about strong farmer interest in the equipment was the excellent condition in which they were maintained. The copy of Form CCC-705 from Illinois is an example of prices received during 1974 for equipment.

REQUEST TO DISPOSE OF CCC OWNED NON-EXPENDABLE EQUIPMENT

STATE Illinois						
COUNTY State Garage						
CCC INVENTORY NO.	MAKE AND TYPE OF EQUIPMENT	YEAR ACQUIRED	CURRENT ESTIMATED VALUE	TO BE COMPLETED AFTER SALE		
				SALE DATE	PRICE RECEIVED	REMARKS
263911	1972 IHC Truck Tractor	72	7,950	10-31	\$11250.00	135
263909	1973 IHC Truck, 6 passenger crew cab	73	2,800	"	3725.00	151
135912	1970 IHC Dump	73 OH	1,850	"	4500.00	123
135913	1970 IHC Dump	73 OH	1,850	"	4850.00	142
263625	1968 IHC Truck 2 1/2 Ton Model 1700	68	1,275	"	4000.00	118
263626	" " " " " "	"	"	"	3500.00	140
263630	" " " " " "	"	"	"	3625.00	138
263623	1968 Chevrolet Truck, 1/2 Ton Pickup	68	450	"	1175.00	130
263150	6X6 Truck Crane with mounted 26' Boom	63	300	"	5800.00	122
134266	1956 Chevrolet Truck, 2 Ton, Boom Truck	73 OH	300	"	3200.00	137
263147	1956 Industrial Payloader	63	125	"	7600.00	137
263148	1963 Yale & Towne Forklift, w/telescopic boom	63	75	"	2550.00	125

FOR ASC COUNTY COMMITTEE		FOR ASC STATE COMMITTEE		FOR DEPUTY ADMINISTRATOR, STATE AND COUNTY OPERATIONS	
APPROVED BY		APPROVED BY	<i>Raymond B. Lett</i>	APPROVED BY	
TITLE		TITLE	State Executive Director	TITLE	
DATE		DATE		DATE	

